

### REMARKS

This document is filed in reply to the Office Action dated July 26, 2004 ("Office Action"). Applicants have (1) amended claims 1-3, 6, 9, 10, 14, 23, and 24 to promote clarity and correct informalities and (2) changed the dependency of claims 5-7. Applicants have also amended the specification to remove embedded hyperlinks and browser-executable codes. Claim 29 has been added. Support for this claim is found, for example, on page 27, line 19. No new matter has been added.

Claims 1-29 are pending. Claims 8-16 and 20-28 have been withdrawn from further consideration for being drawn to a non-elected invention. Claims 1-7 and 17-19 are now under examination. Reconsideration of this application is requested in view of the following remarks.

#### Objections to claim 6 and the specification

The Examiner objected to claim 6 for containing a typographical error and objected to the specification for containing hyperlinks and browser-executable codes. See the Office Action, page 5, line 16 through page 6, line 7. Applicants have amended claim 6 and the specification as suggested by the Examiner and request that the objections be withdrawn.

#### Rejection under 35 U.S.C. § 112, second paragraph

The Examiner rejected claims 1-7 and 17-19 as being indefinite on various grounds, which are traversed respectively below.

#### I

It is the Examiner's position that the "language [of claim 1 fails] to recite a final step, which agrees back with the preamble." See the Office Action, page 3, lines 1-12. Applicants have amended claim 1 and submit that the Examiner's ground for rejection has been removed.

#### II

The Examiner rejected claims 1-7 and 17-19, alleging that three phrases recited in claims 1 and 3 are not clear.

First, according to the Examiner, the phrases “a low magnification” and “a high magnification” recited in claim 1 are “vague and indefinite,” as different people might interpret them differently. See the Office Action, page 3, second paragraph. Applicants have replaced the two phrases with “a first magnification” and “a second, higher magnification,” respectively. As one can clearly understand the second magnification is any magnification that is higher than the first magnification, the amendments have removed the Examiner's ground for rejection.

Second, the Examiner alleged that the phrase “an optical or electronic filter substantially blocks photons” recited in claim 1 is vague since “[i]t is unclear the degree(s)/parameter(s) that Applicants deem ‘substantially’ to encompass.” See the Office Action, page 3, last paragraph. It appears to be the Examiner's position that “substantially” is a term of degree and therefore renders the claim 1 indefinite. Applicants would like to bring to the Examiner's attention that

“[t]he fact that claim language, including terms of degree, may not be precise, does not automatically render the claim indefinite under 35 U.S.C. 112, second paragraph. *Seattle Box Co., v. Industrial Crating & Packing, Inc.*, 731 F.2d 818, 221 USPQ 568 (Fed. Cir. 1984). Acceptability of the claim language depends on whether one of ordinary skill in the art would understand what is claimed, in light of the specification.” See MPEP 2173.05(b).

In fact, as held by the court, the terms “substantially” in patent claims “must be interpreted in light of the specification and prosecution history to determine the literal coverage of the claims.” See *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 1056, 5 USPQ2d 1434, 1442 (Fed. Cir. 1988), *cert. denied* 109 S. Ct. 75 (1988), *on remand*, 13 USPQ2d 1192 (D. Conn. 1989)

The claim at issue is drawn to a fluorescence-based multiple-labeling method for detecting rare target bodies within a large number of candidate bodies. The specification teaches that a wide variety of fluorophores having different peak emission wavelengths can be used to simultaneously detect many different target bodies within a single large population of candidate bodies. For this purpose, one needs to capture and assess the emission wavelength of a first fluorophore bound to a particular candidate body and compare it with what would be expected from other fluorophores. To obtain a satisfactory background, it is necessary to block photons of

other wavelengths to a certain degree. See, e.g., the paragraph bridging pages 14 and 15. Clearly, in light of the teachings in the specification, one skilled in the art would understand what is covered by this claim and what is meant by "substantially block."

Finally, the Examiner stated that "[c]laim 3 and all claims dependent therefrom recite the limitation 'a dye sensitive for dead cells' which is vague and indefinite. It is unclear the criteria by which Applicants regard a dye to be 'sensitive.'" See the Office Action, page 4, lines 4-6. Applicants have amended claim 3 to delete the just-mentioned limitation and to recite "making a dilution of the cell mixture and performing a cell count," thereby rendering the Examiner's ground for rejection moot. Note that a number of cell count-determining methods are known in the art. Further, the specification provides working examples in which cell counts were determined (see, e.g., page 27, lines 14-23 and page 41, lines 14-25). Thus, one skilled in the art would clearly understand what is meant by the amended limitation.

For the reasons set forth above, Applicants request that the rejection be withdrawn.

#### Rejection under 35 U.S.C. § 102(a)

The Examiner rejected claims 1-7 and 17-19 as being anticipated by Kraeft et al., Clinical Cancer Research, 2000, vol. 6, pages 434-442 ("Kraeft et al"). To remove Kraeft et al. as a § 102(a) reference, Applicants submit herewith a Declaration by Dr. Lan Bo Chen, who is a co-author of the Kraeft et al. reference. The other co-authors are Stine-Kathrein Kraeft, Rebecca Sutherland, Laura Gravelin, Guan-Hong Hu, Louis H. Ferland, Paul Richardson, and Anthony Elias. Among all of the co-authors, only Lan Bo Chen and Stine-Kathrein Kraeft are named as co-inventors in the present application. In the Declaration, Dr. Chen avers that the remaining co-authors of the Kraeft et al. reference were working under the direction of at least one of the three named co-inventors and did not make inventive contributions to the subject matter described and claimed in this patent application (paragraph 3). Dr. Chen further avers that the third co-inventor named in the present application, Daniel Auclair, was not listed as a co-author of the Kraeft reference solely because he did not perform the specific experiments described in the Kraeft et

al. reference (paragraph 4). Daniel Auclair nonetheless did make inventive contributions to the subject matter described in the Kraeft et al. reference, as well as in this application.

For the above remarks, the Kraeft et al. reference actually describes the Applicants' own work. Thus, it does not qualify as prior art under § 102(a).

As the Examiner is aware, declarations of this type, so-called "Katz declarations," are used to affirm that certain co-authors of a § 102(a) reference did not make an inventive contribution to the claimed invention and therefore are not co-inventors. *In re Katz*, 215 USPQ 14 (CCPA 1982); MPEP § 715.01(c). Applicants note that the *Katz* court very clearly states that a declaration averring that a § 102(a) reference describes an applicant's own work is sufficient to overcome a prior art rejection under that section:

[W]hen the PTO is aware of a printed publication, which describes the subject matter of the claimed invention and is published before an application is filed (the only date of invention on which it must act in the absence of other proof), the article may or may not raise a substantial question whether the applicant is the inventor. For example, **if the author (whether he is the applicant or not) specifically states that he is describing the work of the applicant, no question at all is raised.** The content and nature of the printed publication, as well as the circumstances surrounding its publication, not merely its authorship, must be considered. *In re Katz*, 215 USPQ at 18 (emphasis added).

Consistent with the *Katz* holding, Applicants have removed the Kraeft et al. reference as prior art under § 102(a), and request that the rejection be withdrawn.

### CONCLUSION

Applicants submit that grounds for the rejections asserted by the Examiner have been overcome, and that claims, as pending, define subject matter that is definite and novel. On this basis, it is submitted that allowance of this application is proper, and early favorable action is solicited.


Applicant : Lan Bo Chen et al.  
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Please apply any other charges to deposit account 06-1050, referencing attorney docket  
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Respectfully submitted,

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